DOCUMENT RESUME

ED 136 164 CG 011 205

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TITLE Entrance of Women to Graduate and Professional Education.
PUB DATE [75]
NOTE 10p.; Paper presented at the Annual Convention of the American Psychological Association (84th, Washington, D.C., September 3-7, 1976)

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS *Academic Aspiration; College Graduates; *Educational Attitudes; *Females; *Graduate Study; Higher Education; Professional Education; *Sex Differences

ABSTRACT

The rates at which men and women attend graduate and professional school were compared in a large national sample of college seniors followed up a year after graduation. Women attended less often, even women with very high grades. Women were particularly underrepresented in law and medicine. When the attendance rates of individuals who had planned to continue their educations the year after college were compared, women followed through with their plans less often. Analyses designed to identify variables related to attendance and following through with plans suggested a long term lower level of confidence among the women. (Author)

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Entrance of Women to Graduate and Professional Education

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It is generally agreed that it is an important goal to increase the numbers of women in the professions on college faculties and in scientific and scholarly occupations for a fair and just society. However, it is also an important goal because of society's need to use its resources of human talent. The implementation of this goal requires that larger numbers of women enter higher education and larger numbers enter graduate and professional education.

Research has shown that, although they have better academic records, women have traditionally less often applied to or entered college (Feldman and Newcomb, 1969, refer to 38 references), have more often withdrawn from college (see Tinto, 1975, for the most recent review, and Astin, 1975, for the most comprehensive recent evidence), and have less often planned advanced degrees (cf., Davis, 1965; Astin and Panos, 1969). However, there is little recent information about the extent to which women attend graduate or professional school.

The purpose of this study is to analyze information from a large, recent sample of college seniors, who were followed-up a year later to answer three questions: 1) Do women attend graduate and professional school as frequently as men do?; 2) Among seniors who planned to continue their education the next year, do women follow through with their plans as often as men do?; and 3) If there are differences in the rates of entrance and following through with plans for advanced education, are there any variables which are related to the differences?

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Data sources. The data for this study comes from a follow-up of a national survey of a sample of college seniors who replied to a questionnaire, The College Senior Survey, in the spring of 1971 (Baird, Clark, & Hartnett, 1973). Some 7,734 seniors in 94 colleges across the country were followed up in late spring of 1972 to determine their activities. Analyses indicated the sample included proportionately slightly fewer minority students than did the nonrespondents, but the sample did not seem to be biased in any other way, and included an extremely wide variety of students.

The Senior Survey covered a great deal of biographical, personal, attitudinal and educational information about students, including their specific plans for study the next year (Baird, Clark, & Hartnett, 1973). The follow-up questionnaire ascertained students' educational and vocational activities, including their specific fields of study (Baird, 1974).

Method. To answer the first question above, the simple frequencies and percentages of men and women in each form of post-graduate activity were compared. To answer the second question, we compared the percentages of men and women who had planned to pursue graduate or professional education in specific fields who were actually doing so a year later. The overall percentages of those who had planned to pursue advanced study, who were in some form of advanced study were also compared. To answer the third question, the senior survey responses of women who went to graduate or professional school were compared with those who did not. In addition, the responses of women who followed through with their plans were compared with those of men who followed through. Standard survey comparison techniques (Simon, 1971) were used in all analyses.

Results

The pattern of activities a year after college graduation was considerably different for men and women. More women than men were working full-time (66.7 to 55.2 percent), and more were working part-time (13.9 to 10.2 percent). Of course, women served in the military much less often (.3 to 8.5 percent). Overall, women less often pursued graduate or professional study (25.4 to 37.9 percent). A larger proportion of women than of men were studying arts and humanities (4.6 to 2.9 percent). The proportions of men and women studying social science (3.5 to 3.4 percent) and other fields (11.8 to 10.9 percent) were about equal. Fewer women than men were studying a biological or physical science (2.5 to 5.9 percent). Women were much less often enrolled in the professional schools of business (.7 to 4.2 percent), law (1.3 to 5.4 percent) and medicine (1.1 to 5.2 percent). Most of these differences are highly consistent with the differences in the plans of men and women reported by Baird, Clark, and Hartnett (1973), who found that women obtained higher grades than men but that only 29.3 percent of the women compared to 44.4 percent of the men planned to pursue advanced study the year following graduation. The differences in plans to enter law and medicine were even more extreme.

The extent of the influence of sex on graduate and professional school attendance is shown in Table 1. The entries show the percentages of men and women with particular grade averages in college who were attending graduate or professional school a year after graduation. There is a difference in attendance rates even among the students with the best grades; in fact, the women who had A to A+ grades attended graduate or professional school only about as often as men with B grades. These differences are lessened, but are still

sizeable when only men and women who planned to pursue advanced studies are studied. The differences in the rate with which men and women implement their plans are discussed next.

Overall, as surveyed a year later, 56.7 percent of the men in contrast to 41.2 percent of the women were in the field of advanced study they had planned to enter as seniors, a difference of 15.5 percent. In other analyses, we found that 18.2 percent of the men and 23.1 percent of the women who had planned to enter graduate study were in advanced study in a field other than their planned field. A quarter (25.1 percent) of the men who had planned to continue their educations were not doing so; over a third of the women (35.4 percent) were not doing so. Many of the women entered education; nearly a quarter of the women in graduate or professional school were in education in contrast to approximately 6 percent of the men.

Altogether, about three-quarters (74.9 percent) of the men who had planned to pursue advanced study were in graduate or professional school, whereas less than two-thirds (64.6 percent) of the women who had planned to pursue advanced studies had done so a year later. Thus, compared to men, women less often planned advanced study, and when they did plan to go on, less often actually did so, and, when they went on, less often entered the field they had planned.

How can we account for these differences? The senior data showed that women who had planned to go on to advanced study in graduate and professional schools had undergraduate grades superior to those of the men who had planned to go on. They came from somewhat better educated and more affluent families. However, they expressed less confidence in their ability to complete advanced

work, their ability to get A's in graduate or professional school, and their chances to rank among the best in their class in graduate or professional school.

The women's sense of confidence was lower in other areas, too, even when their performance equaled or excelled that of the men. For example, there were consistent differences even between the men and women who went on to advanced study. These women had held as many positions in student government as had the men, had been elected to as many offices, and had worked just as actively in political groups and student movements. Yet, the same women rated themselves significantly lower than the men in leadership and speaking ability and the ability to act when limited facts are available. The women had more often independently read scholarly books in their field, read other books unrelated to their courses, attended scholarly meetings in their field, and won prizes, awards or special recognition for work in their fields. Yet, the women rated themselves lower than did the men in scholarship, mathematical ability, writing ability, and scientific ability.

It seems clear that women, even those who go on to advanced study, have a lower sense of confidence in their ability to handle difficult work than do the men. (Maccoby and Jacklin [1974] have summarized research which shows that women have less confidence in handling new tasks, although their general self-esteem equalled that of men.) Why? We do not have the kind of data needed to answer this deceptively simple question, but we do have some clues. Compared to the men, the women who went on less often reported that their parents had often encouraged them to attend graduate or professional school. Of course, studies at several levels indicate that women seem to feel less encouragement (and pressure) from their parents for educational attainment. Probably

beginning in their early years, the women did not receive, as strongly as the men, the unspoken and subconscious message that they were able and that considerable accomplishments were expected of them. (Maccoby and Jacklin find more evidence for ideas of sex typing than for differences in actual child rearing practices.)

Discussion

One of the goals of a just admissions system is to admit the most capable and motivated students, whatever their backgrounds. What can be done to be sure that capable and motivated women will be able to go to graduate or professional school? Unfortunately, there are few suggestions for changes at the graduate or professional school level from our results. Finances do not seem to be the problem. Women seemed to have just as much access to fellowships and scholarships as men, and women held assistantships just as often. Men and women in advanced study worked to about the same extent. Nor is counseling a panacea. Analyses of the senior data indicated that men and women reported about the same degree of encouragement from faculty, and they considered the same sources of advice to be valuable in deciding about future plans. The differences in the attendance patterns do not seem to be easily explained by anything that could be affected by a simple change in the practices or policies of the graduate or professional schools. Rather, the differences seem to be due to a long term lack of confidence among many women, which may be difficult to change. Changes in policies at the graduate level will certainly help, particularly changing the kind of frankly sexist attitudes held by some professors and department chairmen that Heiss (1970) found. However, it seems

that the differences between men and women at the graduate and professional school level will be eradicated only as part of a general change in our society's attitude toward women, and women's own attitude toward themselves. In lieu of such changes in the near future, capable college women should be given more encouragement to consider graduate or professional school than they are now. Perhaps counseling, information, or awareness programs could increase the numbers of college women who apply for advanced study.

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Table 1

Percentage of Men and Women Graduates Enrolled in Graduate and Professional School According to Undergraduate Grades

	Grades				
Sex	C, Below	C+	B	B+	A to A+
Men	12	23	45	56	70
Women	12	15	22	31	47